

**STATE OF
COLORADO**

Andrews - DNR, Doug <doug.andrews@state.co.us>

Form 2A review for Kerr-McGee's HOWARD 25C-22HZ location - Doc #4004549986 messages

Andrews - DNR, Doug <doug.andrews@state.co.us>

Fri, Sep 6, 2013 at 2:38 PM

To: "Abrams, Laura" <laura.abrams@anadarko.com>

Laura,

I have reviewed the referenced Form 2A and have a few comments.

1) A review of the your Location Drawing appears to indicate that the operational disturbance area will overlap onto the 79 Weld Loam, 1-3% slopes NRCS Soil Map Unit. Therefore I will add that to the Soils section of the Form 2A. Please send me the NRCS Soil Map Unit Description for this soil unit and I will also add it to the list of Attachments.

2) In the Water Resources section of the Form 2A and on your Hydrology Map you have indicated the nearest surface water is an unnamed pond 3,877 feet west of the oil and gas location. However, your Location Drawing indicates there are irrigation ditches 136 feet southeast, 230 feet west, and 894 feet northwest. Therefore I will change the distance to the nearest surface water to 136 feet on the Form 2A.

3) Due to the proximity of irrigation ditches to the oil and gas location, I will change the Sensitive Area designation in the Water Resources section from NO to YES on the Form 2A.

4) A review of the closest water well permit #291339 indicates that 35 feet is the depth of the well and 29 feet is the static water level depth, therefore I will change the depth to ground water in the Water Resources section from 35 feet to 29 feet on the Form 2A.

5) In the Water Resources section of the Form 2A you have indicated that a Rule 901.e Sensitive Area Determination was performed but you have not provided any information concerning it as an Attachment. Please provide me with the Sensitive Area Determination information and results that you have conducted and I will add it to the Form 2A. If a Rule 901.e Sensitive Area Determination was not conducted and this box was erroneously marked as YES, please let me know and I will change it to NO on the Form 2A.

6) Due to the presence of irrigation ditches within the operational disturbance area, I would like to add the following Condition of Approval:
"Operator must implement site-specific best management practices in accordance with good engineering practices, including, but not limited to, construction of a berm or diversion dike, site grading, or other comparable measures, sufficient to protect the irrigation ditches located 136 feet southeast and 230 feet west of the oil and gas location from a release of drilling, completion, produced fluids, and chemical products."

Please feel free to contact me if you have any questions. Thank you.

—

Doug Andrews

Oil & Gas Location Assessment Specialist - Northeast Area
Colorado Oil & Gas Conservation Commission

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303-894-2100 Ext. 5180

Andrews - DNR, Doug <doug.andrews@state.co.us>
To: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Thu, Sep 19, 2013 at 1:44 PM

Lauren,

Another one where I had emailed Laura Abrams but haven't gotten a response back yet. This one and the one I just forwarded to you (for the NEW DAY 4C-7HZ location) are the only outstanding ones I'm waiting to hear back on. Thanks.

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Kucera, Lauren <Lauren.Kucera@anadarko.com>
To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

Thu, Sep 19, 2013 at 2:50 PM

Hi Doug,

Our GIS Analyst is out of the office today. I will ask him to revise the hydro map tomorrow and will respond to this message. I am sorry you did not receive a response sooner.

Thank you,

Lauren Kucera
Regulatory Affairs – Rockies GWA
Anadarko Petroleum Corporation
(720) 929-6107 - Direct

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]
Sent: Thursday, September 19, 2013 1:45 PM
To: Kucera, Lauren
Subject: Fwd: Form 2A review for Kerr-McGee's HOWARD 25C-22HZ location - Doc #400454998

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Light, Cheryl <Cheryl.Light@anadarko.com>
To: "Andrews - DNR, Doug (doug.andrews@state.co.us)" <doug.andrews@state.co.us>

Wed, Sep 25, 2013 at 10:04 AM

Cc: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Hopefully this is all you need. Let me know if we are still missing anything.

From: Kucera, Lauren

Sent: Wednesday, September 25, 2013 9:40 AM

To: Light, Cheryl

Subject: RE: Form 2A review for Kerr-McGee's HOWARD 25C-22HZ location - Doc #400454998

Hi Doug,

- 1.) Attached is the additional NRCS map unit description and updated Hydro.
- 2.) I agree
- 3.) I agree
- 4.) I agree
- 5.) Sensitive area determination:
- 6.) KMG agrees to the COA

Thank you,

Lauren Kucera

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2 attachments



79-HOWARD 25C-22HZ NRCS.pdf

41K



Howard 25C_22HZ_Hydro.pdf

494K

Andrews - DNR, Doug <doug.andrews@state.co.us>

Wed, Sep 25, 2013 at 10:11 AM

To: "Light, Cheryl" <Cheryl.Light@anadarko.com>

Cc: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Lauren & Cheryl,

For your response to my comment #5 regarding the Sensitive Area Determination, did you mean

to include an attachment or some additional information? It looks like some info was accidentally left off of your response. Thanks.

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Light, Cheryl <Cheryl.Light@anadarko.com>

Wed, Sep 25, 2013 at 10:19 AM

To: "Andrews - DNR, Doug (doug.andrews@state.co.us)" <doug.andrews@state.co.us>

Cc: "Kucera, Lauren" <Lauren.Kucera@anadarko.com>

Howard 25C-22HZ hydro 9/25/2013

Nearest surface water feature: 136' SE, ditch, elev 5033'

Well elevation: 5034'

Nearest water well: 1373' W, permit 291339, well depth 35', depth to groundwater 29'

Sensitive area determination: NOT SENSITIVE. No water wells within this or the surrounding qtr-qtrs have a depth to groundwater less than or equal to 20'.

From: Light, Cheryl

Sent: Wednesday, September 25, 2013 10:05 AM

To: Andrews - DNR, Doug (doug.andrews@state.co.us)

Cc: Kucera, Lauren

Subject: FW: Form 2A review for Kerr-McGee's HOWARD 25C-22HZ location - Doc #400454998

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